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Augustus S. Harrison, son of Lieut. John Harrison, R.N., was born at Compton, Sussex, in 1824 August. He was educated at Christ's Hospital, London, for eleven years, where he was Senior Grecian and Mathematical Medallist. He entered Caius College, Cambridge, in 1843, and was elected a Scholar in 1844. He took the college Mathematical Prize in 1844 and 1845, and graduated as twenty-seventh Wrangler, with a third-class honours in Classics.

In 1848 he joined the Bengal Educational Department, but after serving in various positions in the Lower Provinces he resigned the service in 1862, and travelled in the hills. Five years later he rejoined the service in the North-West Provinces, and was appointed Professor of English Literature in the Bareilly College. On the institution of the Muir College in 1872, he was appointed its Principal. In 1879 he came under the age rules, but was granted an extension of service, which was renewed in 1884. Mr. Harrison was not only a mathematician and a man of science, but a Sanskrit scholar and widely read in literature. Though absent from Europe continuously for forty years, he kept well abreast of the progress of mathematical and physical science. He died very suddenly of fever on 1885 June 22, at Allahabad, though his death has only recently become known to the Society.

He was elected a Fellow on 1876 January 14, but contributed no papers to the Society.

Benjamin John Hopkins was born at Haggerston in 1862 October. His father was a journeyman carpenter and joiner, but gave up this trade some years later to take a small beerhouse, in the neighbourhood of Hornsey. The son received an indifferent education at various local schools, and at the early age of ten years was kept at home to act as potboy. With the exception of another year's schooling in 1874–5, when his father had disposed of the beerhouse at Hornsey and not yet taken another, and of a few weeks' instruction at odd times, Mr. Hopkins was self-taught. His enthusiasm for science was, however, conspicuous even at this early age, and during this last year he applied himself with such diligence to the study of sound, light, and heat as to gain the certificate of the Science and Art Department in these subjects as well as for drawing and geometry. In 1875 his father took another beerhouse, "The Dog and Gun," at Canning Town, and having an invalid wife and no other children, kept his son at home to serve behind the bar. The boy now began to take an interest in astronomy, purchasing books at secondhand bookstalls with such pence as he could save from his dinner-money. His parents gave him a pocket telescope, and he managed later to purchase an old quadrant for 3*s.* 2*d.* after hard bargaining with a Jew dealer. He read his books behind the bar when business was quiet in the afternoons, and made observations in the backyard at all hours of the night. In 1876 (when only fourteen) he conceived the idea that the

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rotation of comets' tails at perihelion was a phenomenon of the same nature as the rotation of the radiometer (then believed to depend on the action of light): he wondered whether the light of the Sun might not act as a repelling force on the matter composing the tail, and wrote to the President of the Royal Society (Sir Joseph Hooker), making the suggestion. Professor Stokes, to whom the letter was referred, replied at some length not only to this but to several other queries of the young enthusiast, and ultimately went to see him in 1876 December, and further recommended him to Lord Lindsay, who also visited the "Dog and Gun" to see the astronomer behind the bar. This latter visit resulted in an invitation to Dunecht, where young Hopkins spent a delightful month among instruments such as he had dreamed of, returning home with a 1½-inch telescope, with which all his subsequent observations were made up to 1882, including that of the transit of *Mercury* in 1878. He communicated these observations to the *English Mechanic*, and afterwards wrote various letters to that journal, the most important being one describing a proposed instrument for determining the colours of stars.

He was now apprenticed to a brass engraver, and his hours of work were very long. In 1883 his mother died. In 1884 he married; in 1886 he tried, without success, to establish himself in business in the City, and passed through a time of trying poverty and reverses, happily, however, not of long duration. His interest in astronomy never flagged. He had already commenced a book on "Astronomy for Every Day Readers; suitable to be taken up by the mechanic at the close of a laborious day's work, or by the tradesman after a harassing day spent in competing with his rivals," and continued his writing throughout this period of poverty. From difficulties in finding a publisher this book did not appear till 1893; from it most particulars in this notice have been taken.

Mr. Hopkins was elected a Fellow in 1883 April. He communicated three papers to the Society, one on the Great Comet of 1882, and two on "Erratic Meteors," meteors, that is, with apparently broken paths; all three were accompanied by drawings. He wrote several papers in the *Astronomical Register*, the *Observatory*, *Nature*, *Knowledge*, and the *English Mechanic*, and as a member of the British Astronomical Association contributed frequently to its journal.

His health was never good, and he died on 1894 January 16, at the early age of 32. He leaves an invalid widow and two little girls in very poor circumstances.

Richard Johnson was born at Dublin on 1840 March 22. He obtained a classical scholarship at Trinity College, Dublin, in 1867, but afterwards devoted himself to the teaching of experimental science with considerable success. He remained at this college, unmarried, till his death on 1894 February 6,

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